

Poa ludens R. R. Stewart and *Poa poophagorum* Bor (Poaceae): Two New Records for North-West Himalaya

Abstract

Poa ludens R. R. Stewart and *P. poophagorum* Bor (Poaceae), so far reported from Central and Eastern Himalayas, are recorded for the first time from Pin Valley National Park in Himachal Pradesh, North-West Himalaya.

Keywords: Two *Poa* species, Extended distribution, Eastern to North-Western Himalayas

Introduction

Genus *Poa* L. is represented by c. 500 species in the world. They are distributed from temperate to alpine regions of northern hemisphere (Mabberley, 1998). Rajbhandari (1991) reported 52 species from Himalaya in India, Nepal and Bhutan. Nair and Thomas (2001) mentioned that 55 species of *Poa* occurred in India. Of these, 33 species are known from Himachal Pradesh (Murti, 2001). Chandra Sekar *et al.* (2003a) have recently added *Poa hylobates* Bor to Indian flora from Pin Valley National Park. Survey and exploration in the remote localities of Pin Valley National Park conducted by the senior author helped to record *Poa ludens* R. R. Stewart and *P. poophagorum* Bor from the area. These species were already known from Sikkim and Assam in Eastern Himalaya, Nepal, Bhutan and Tibet. The present collections show extended distribution of these species from Eastern to North-Western Himalayas. It is a new record for Himachal Pradesh also (Bor, 1960; Stewart, 1967; Chowdhery & Wadhwa, 1984; Kapur *et al.*, 1991; Rajbhandari, 1991; Aswal & Mehrotra, 1994; Uniyal *et al.* 1994; Gaur & Nautiyal, 1995; Murti, 2001; Chandra Sekar *et al.*, 2003 b, c).

Keys, nomenclature and brief descriptions are provided below.

Key to species

- 1a. Ligules upto 1 mm long; panicle oblong; lower glumes elliptic-oblong; callus hairy..... *P. ludens*
- 1b. Ligules 2-3 mm long; panicle linear; lower glumes lanceolate; callus glabrous *P. poophagorum*

Poa ludens R. R. Stewart in Brittonia 5: 420. 1945; Bor, in J. Bomb. Nat. Hist. Soc. 51: 83. 1952 & Grass. Burma, Ceylon, India & Pakistan 558. 1960; Melderis in Hara *et al.*, Enum. Fl. Pl. Nepal 1: 143. 1978; Rajbhandari in Ohba & Malla, The Himalayan Plants 2: 217. 1991.

Tufted perennials; culms upto 55 cm high, terete, smooth. *Leaf blades* linear, 1.5-5 cm long, 1-2 mm wide; ligules 0.6-1 mm long. *Panicle* oblong, 4.5-8 x 1.5-4.5 cm, branches spreading, lower branches 2, smooth. *Spikelets* elliptic, 3.7-5.5 mm long, 3-4-flowered; lower glume elliptic-oblong, 2.1-3.5 x 0.9-1.2 mm, acute, 1-3-nerved; upper glume elliptic-oblong, 3-4 x 1-2 mm, acute, 3-nerved; callus hairy; lemma elliptic-oblong, 3.7-4.2 x 1.5-2 mm, acute, hairy on the outside, including the keels in the lower half; palea elliptic, 3.4-3.8 x 0.5-0.7 mm, ciliate; anthers 1.8-2.5 mm long.

Flowering & Fruiting: July-September.

Distribution: India (Eastern and North-Western Himalaya), Nepal, Bhutan and China (Tibet).

Habitat: Rocky slopes.

Altitude: 3900-4300 m.

Specimens Examined: INDIA, Himachal Pradesh, Pin Valley National Park, Chhohem, 4010 m, 13.07.2003, K. Chandra Sekar 103285 (BSD); Mud-Tariya, 4000 m, 03.08.2002, K. Chandra Sekar 102850 (BSD); Sanpat, 4300 m, 04.08.2002, K. Chandra Sekar 102866 (BSD). Sikkim, Kopuh, 13000 ft, 31.08.1945, Bor's collector 646 (DD). TIBET, Yatung, 12000 ft, 14.06.1945, Bor & Kirat Ram 20178 (DD); Kala gompha, 12000 ft, 12.06.1945, Bor & Kirat Ram 19636 (DD); Foot of Natula, 23.06.1945, Bor & Kirat Ram 20566 (DD).

Poa poophagorum Bor in Kew Bull. 1948: 143. 1948; J. Bomb. Nat. Hist. Soc. 51: 87. 1952 & Grass. Burma, Ceylon, India & Pakistan 559. 1960; Melderis in Hara *et al.*, Enum. Fl. Pl. Nepal 1: 143. 1978; Rajbhandari in Ohba & Malla, The Himalayan Plants 2: 228. 1991.

Tufted perennials; culms upto 40 cm high. *Leaf blades* linear, 1.5-4.5 cm long, 1-1.7 mm wide; ligules 2.2-3 mm long. *Panicle* linear, 2-11 x 0.6-1.5 cm, branches ascending, lower branches 2-4, scabrid. *Spikelets* elliptic, 3-4.1 mm long, 2-3-flowered; lower glume lanceolate, 2-2.6 x 0.6-1.2 mm, acute, 3-nerved; upper glume elliptic-lanceolate, 2.2-2.9 x 0.6-1.4 mm, acute, 3-nerved; callus glabrous; lemma oblong, 2.5-3.2 x 1-1.4 mm, acute, hairy on the keels in the lower half, glabrous otherwise; palea elliptic-oblong, 2.2-2.8 mm long, ciliate; anthers 1.2-1.7 mm long.

Flowering & Fruiting: July-September.

Distribution: India (Eastern Himalaya), Nepal to Bhutan and China (Tibet).

Habitat: Moist slopes near streams, scarce.

Altitude: 4350 m.

Specimens Examined: INDIA, Himachal Pradesh, Pin Valley National Park, Kilung-Larang La, 4350m, 05.08.2003. K. Chandra Sekar 103745 (BSD).

Note: The above specimen matches with the photograph of Bor, 1952 l. c. (Holotype). It resembles *P. mustangensis* Rajb. but can be distinguished in having smooth culms, obscure intermediate nerves on lemma and glabrous ligules.

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